

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR, NOISE, AND RADIATION

SUBJECT: PSD Evaluation of Secondary Emissions for Houston Lighting and Power

FROM: Edward F. Tuerk, Acting Assistant Administrator
for Air, Noise and Radiation (ANR-443)

TO: Allyn M. Davis, Director
Air and Hazardous Materials Division (6AAH)

This is to convey the final response to your memo of March 13, 1981 to Darryl Tyler, Acting Director of Control Programs Development Division (CPDD), in which you asked for assistance in the PSD review of a mine-mouth power plant application from Houston Lighting and Power (HL&P). In particular, you were interested in how the emissions of the nearby mine under different ownership must be taken into account by HL&P, recognizing that such emissions can often have significant ambient impacts. This memo also serves to document CPDD's involvement to date in developing this response.

As you know, issues associated with the HL&P application are closely related to those raised by the American Mining Congress (AMC) in their petition for review of the PSD regulations to the U.S. Court of Appeals for the District of Columbia Circuit. For example, in their petition, AMC has asked that an exemption be reinstated which again would allow sources to ignore the ambient impacts of certain fugitive particulate matter emissions. Because of this linkage, we agreed to explore how the HL&P and AMC issues might jointly be resolved while Region VI continued to work with HL&P to develop an otherwise complete application.

We further agreed that the joint AMC/HL&P resolution would no longer be pursued if it would begin to jeopardize unduly the company's plans for construction. HL&P had informed us that it must commence construction by October 1, 1981. On May 1, 1981 Jack Divita of your staff informed us that the company's PSD application was nearly complete except for an analysis that might be required for secondary emissions. Since a joint resolution of the AMC/HL&P issues was not yet possible, we agreed to explore other independent ways to resolve the secondary emissions issue arising from HL&P's PSD application.

The Clean Air Act requires that PSD review include a detailed and extensive air quality impact assessment of the effects of a proposed source. This includes evaluation of the source's secondary emissions. See Section 165 (a) (3), (6) and 40 CFR 52.21(k). Secondary emissions are defined by the regulations as those which would result from the construction or operation of a

major stationary source or major modification but do not come from that source or modification. 40 CFR 52.21(b)(18). This definition sets out four tests to be used in determining whether such emissions are to be included in air quality impact assessments for PSD purposes: the emissions must be specific, well defined, quantifiable, and impact the same general area. The mine's emissions appear to meet the first three tests, but for reasons discussed below, they fail to meet the fourth test.

The term "impact the same general area" embodied in the fourth test to determine reviewability of secondary emissions is not precisely defined. However, the scope of any required analysis has to be limited to those areas where both secondary and primary emissions are known to commonly impact. Based on recent conversations with OGC, we have determined that the most useful quantification of this concept for use in Class II and III areas is that of the area of significant impact, as set forth in the Emission Offset Interpretative Ruling (40 CFR Part 51, Appendix S, III.A.) and the preamble to the 1978 PSD regulations (43 FR 26398, June 19, 1978). Pursuant to this approach, the significant impact area for total suspended particulate matter (TSP) or SO₂ would be all those areas in which the source's emissions would produce an ambient impact equal to or exceeding a concentration of 1 cubic meter on an annual basis or 5 cubic meter on a 24-hour basis.

Modeling analysis reveals that HL&P will not cause a significant ambient concentration of TSP at any location. Therefore, my recommendation is that Region VI not consider the emissions from the mine as secondary emissions in evaluating HL&P's impact on ambient TSP increments and standards. I believe that the mine's emissions do not meet the definitional test for secondary emissions since they do not impact any area of significant impact which would be created by the direct emissions of HL&P. Thus, HL&P's application can be processed without regard to any air quality impacts from the nearby mine.

I trust that this response will be useful to you in your efforts to process HL&P's PSD application. Let me know if we can be of further assistance.

cc: R. Campbell
E. Reich
D. Menotti
L. Wegman
D. Tyler

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: March 13, 1981

SUBJECT: Evaluation of Secondary Emissions in PSD Review

FROM: Allyn M. Davis, Director
Air and Hazardous Materials Division (6AAH)

TO: Darryl D. Tyler, Acting Director
Control Programs Development Division (MD-15)

We are presently processing several PSD applications for mine-mouth power plants. Under the PSD regulations, as amended August 7, 1980, the emissions from the adjacent mine would be considered secondary emissions of the power plant. As secondary emissions, the mine emissions must be considered in the power plant air quality analysis when those emissions are "specific, well defined, reasonably quantifiable, and impact the same general area." (Page 52728)

One of the power plants, Houston Lighting and Power (HL&P) is claiming that if they model all the fugitive particulate emissions associated with the mine, they would violate the PSD increments. They contend emissions from haul roads, overburden removal, land reclamation, etc., are not "specific, well defined, or reasonably quantifiable, and thus should not be considered in the power plant air quality analysis. They did consider fugitive emissions from the unloading of lignite from the mine trucks into the unloading hopper, the crusher, the crushed lignite storage piles downstream of the crusher, the lignite transfer and conveyances within the mine, and the conveyor which transports lignite from the mine storage piles to the power plant.

HL&P also contends that the paragraph stating only specific, well defined and reasonably quantifiable secondary emissions be considered, was developed with mining emissions in mind. They view this paragraph as a mechanism to exempt certain mining emissions from the air quality analysis.

In addition, HL&P considers the regulations to be inconsistent with respect to mining emissions, if we require all the mining emissions to be considered in the power plant air quality analysis. They indicate the regulations generally exempt mines from PSD review, but could disapprove a power plant because of secondary impacts from an associated mine.

The air quality analysis example in the PSD Workshop Manual is for a power plant and an adjacent mine. Secondary emissions from the adjacent mine were considered in the increment and NAAQS analyses. However, no information is provided on what mining emissions were considered.

If the mine emissions do not impact the same general area as the power plant emissions, we are not required to consider the secondary mine emissions. Is there any specific distance, for example 50 Km, which beyond that distance secondary emissions are not considered to impact the "same general area?"

Another possible consideration is whether or not the source causing the secondary emissions has an impact area. If a source has no impact area, could we exempt secondary emissions on that basis? Also, what effect does separate owners of the power plant and mine have on the secondary emissions issue?

I ask that you provide guidance regarding the above questions. Due to the critical timing of these applications, I ask that you respond by March 30, 1981. If you have any questions, please contact Bill Taylor at FTS 729- 1594.